

REMARKS

The Applicant thanks the Examiner for the thorough examination of the application. No new matter is believed to be added to the application by this Amendment.

Entry of Amendment

Entry of this Amendment Under 37 C.F.R. 1.116 is respectfully requested because it places the application in condition for allowance. Alternately, entry is proper because it places the application in better form for appeal.

Status of the Claims

Claims 1-15 are pending in the application. Support for the amendments to claim 1 can be found in Figures 2 and 3 of the application.

Rejection Under 35 U.S.C. 102(b) Over Kapounek

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kapounek (U.S. Patent No. 5,328,447). Applicant respectfully traverses.

The Present Invention and Its Advantages

The present invention pertains to a back protector particularly suited to the rigorous conditions experienced by motorcyclists. The invention can be typically depicted by Figure 2 of the application which is reproduced below.

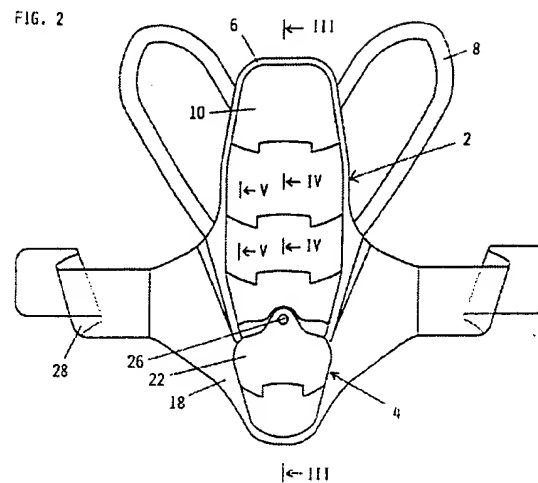


Figure 2 of the application shows a substantially elliptical upper support element 2 that covers the thoracic and first two lumbar vertebrae, and a lower support element 4 covers the remaining lumbar vertebrae and part of the glutei. The upper element 2 contains superimposed plates 10. The lower element 4 contains an inner layer of expanded soft material 18 to which are applied a soft material layer 20 to absorb the impact of the two plates 22. An end pin 26 acts as a hinge.

As shown, the protection element of the invention not only provides total protection to the vertebrae of the spinal cord and of the glutei but also, by virtue of the hinging of the two parts and of the hinging between the adjacent plates, enables the torso to flex laterally and to bend forward and backward.

The invention finds a typical embodiment in claim 1:

1. A back protector which comprises an upper support and a lower support, said upper and lower supports being adapted to conform to upper and lower regions of the back of a user, said upper support being substantially vertically aligned with said lower support, said upper support and lower support being provided with respective means for fixing them to the back of the user, each of said supports

carrying a plurality of substantially rigid elements fixed thereto, said lower support being directly hinged to said upper support on a single pin.

Distinctions of the Invention over Kapounek

Kapounek pertains to a spine protector suitable for a bomb disposal suit. See Abstract of Kapounek. In making his rejection, the Examiner turns to Figure 1B of Kapounek which is reproduced below.

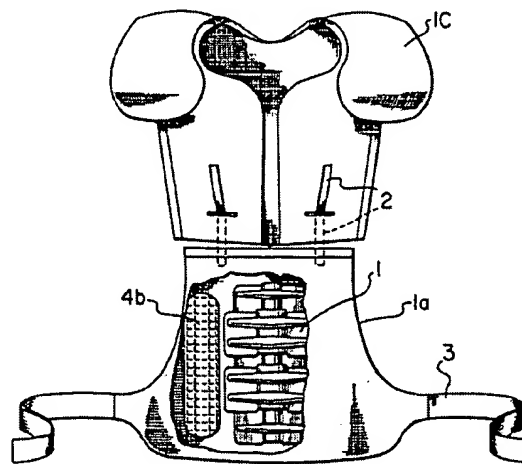


Figure 1B of Kapounek shows a back or spine protector that can be used in a bomb disposal suit or as a piece of sports equipment such as a football shoulder pad. The spine protector element 1 contains rigid elements fixed thereto and is placed in a pouch 1a which is in turn hinged to a shoulder protector element (shoulder pads 1C) using two symmetrical straps 2. Kapounek fails to provide sufficient back protection. Kapounek additionally fails to disclose a hinge.

First, the shoulder protection afforded by Kapounek cannot be viewed as

back protection, since the function of protecting the back or spine is intended to be completely carried out only by the spine protector, which is the lower element of Kapounek's assembly.

Also, the two spaced symmetrical straps 2 of Kapounek are not a hinge. No hinge function is disclosed or suggested by Kapounek. For example, Kapounek at column 3, lines 12-14 states: "Straps 2 and belts 3 hold the spine protector in place on an underpad 4." Kapounek at column 3, lines 18-19 states: "Straps 2 and belt 3 hold the spine protector pouch 1A in place." As a result, the straps of Kapounek act as a fastener and not as a hinge. In contrast, claim 1 of the invention sets forth that "said lower support being directly hinged to said upper support on a single pin." That is, Kapounek fails to disclose or suggest a mechanical hinge connection between the shoulder pad and the spine protector.

Further, the Examiner interprets the shoulder protector 1C of Kapounek to be equivalent to the upper support 2 of the invention. The Examiner additionally interprets the spine protector 1 of Kapounek to be equivalent to the lower support 4 of the invention. However, claim 1 sets forth "substantially rigid elements" which cannot be compared to the soft shoulder pad 1C in Figure 1B of Kapounek, where no rigid element is provided. As a result, Kapounek fails to anticipate the invention for these additional reasons.

Yet further, claim 1 of the invention sets forth that the upper and lower supports are provided with "respective means" for affixing them to the back of the user. In contrast, Kapounek shows that only the spine protector 1 (i.e., the lower

element), shows straps 3 for being affixed to the back of the user.

In contrast, the invention has the lower support being directly hinged to the upper support on a single pin. This feature allows the lower support to rotate with respect to the upper support such that both supports remain centered to the user's spine regardless of any reciprocal motion between the supports.

In sharp contrast, Kapounek teaches a pouch and strap assembly for hanging a lower protection element to a shoulder protector. Kapounek's pouch and strap assembly clearly allow the lateral displacement of the lower element with respect to the shoulder protection to thus lack the ability to maintain the lower protector element centered to the spine. Kapounek's technology further allows an up-and-down displacement to decrease the level of safety provided by Kapounek's protector.

As a result, Kapounek clearly fails to anticipate or suggest the invention set forth in independent claims 1 and 14. The claims dependent upon claims 1 and 14 are patentable for at least the above reasons.

This rejection is overcome and withdrawal thereof is respectfully requested.

Information Disclosure Statement

The Applicant thanks the Examiner for considering the Information Disclosure Statement filed December 27, 1999 and for making the initialed PTO-1449 form of record in the application in the Office Action mailed December 11, 2000.

Prior Art

The prior art cited but not utilized by the Examiner shows the status of the conventional art that the invention supercedes. Additional remarks are accordingly not necessary.

Foreign Priority

The Examiner has acknowledged foreign priority in the Office Action mailed December 11, 2000.

The Drawings

The Examiner is respectfully requested to indicate whether the drawing figures are acceptable in the next official action.

Conclusion

The rejection over Kapounnek has been successfully traversed. No issues remain. The Examiner is respectfully requested to allow the application.

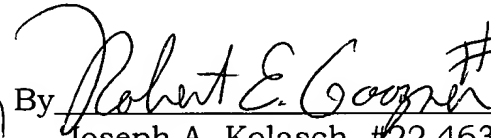
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert E. Goozner, Ph.D. (Reg. No. 42,593) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$55.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)